

Plant and Equipment Expenditures: 1981

NEW plant and equipment expenditures planned by U.S. nonfarm business for 1981 total \$326.1 billion, 10.8 percent more than in 1980 (table 1 and chart 8). This estimate is based on the annual survey conducted by BEA in late November and December. Estimated 1980 spending, based on the survey conducted a month earlier, is \$294.2 billion, 8.8 percent more than in 1979.¹

These data are not adjusted for price change. Survey respondents estimate an 11-percent price increase for capital goods purchased by them in 1980, and they expect a similar increase in 1981 (table 2).² Since 1970, when BEA initiated its inquiry into capital goods price changes, the survey-based estimates have indicated larger actual price increases than did the implicit price deflator for the fixed nonresidential investment component of GNP in every year except 1976 and 1978. The reasons for the differences are not known. The deflator increased about 9 percent in

1980, suggesting that real spending on plant and equipment in 1980 declined about one-half of 1 percent. If capital goods prices increase this year about the same as last year, an increase in real spending of about 1½ percent for 1981 is implied.

The 1981 spending plans indicate that—as in 1980—manufacturing spending will increase at a sharper rate than nonmanufacturing. However, the increase in manufacturing is smaller than the increase last year, and that for nonmanufacturing is larger than last year.

Manufacturing industries plan to spend \$181.1 billion, 14 percent more than in 1980, when spending increased 16½ percent. All major industry groups, except iron and steel, plan

spending equal to or higher than last year's level. Of the four industries reporting large percentage increases, two did so last year also, and two did not. The largest increases are planned by electrical machinery, 29½ percent, and petroleum, 27 percent; last year, electrical machinery increased 29 percent, and petroleum, 25½ percent. Rubber plans a 20½ percent increase and non-electrical machinery, 18 percent; last year, rubber reported an 18-percent decline and nonelectrical machinery reported a 9½-percent increase.

The "other nondurables," "other durables," aircraft, and food-beverage industries plan moderate increases, ranging from 10 to 17 percent. All of these industries reported larger increases last

Table 1.—Expenditures for New Plant and Equipment by U.S. Nonfarm Business, 1979-81

	1979	1980 *	1981 †	1979-80	1980-81
	Billions of dollars			Percent change	
Total nonfarm business.....	270.48	294.28	326.13	8.8	10.8
Manufacturing.....	94.68	114.90	131.12	15.4	14.1
Durable goods.....	51.97	58.25	65.00	14.1	11.3
Primary metals ‡	4.70	7.79	7.79	14.0	1.1
Black iron/steel, steel works.....	3.09	3.37	3.08	8.3	-5.6
Nonferrous metals.....	2.29	3.05	3.17	27.6	4.0
Fabricated metals.....	3.05	3.03	2.14	-0.5	-3.7
Electrical machinery.....	7.23	9.38	12.16	28.3	29.7
Machinery, except electrical.....	10.22	11.52	12.80	12.4	11.0
Transportation equipment §	15.33	17.79	18.88	16.1	6.0
Motor vehicles.....	8.80	9.02	9.80	2.6	8.6
Aircraft.....	5.37	5.85	7.88	9.0	34.8
Stone, clay, and glass.....	2.64	3.77	3.78	42.3	0.1
Other durables ¶	4.22	5.00	5.35	18.1	6.8
Nondurable goods.....	42.61	55.65	66.12	28.0	18.9
Food including beverages.....	4.02	7.35	8.14	11.2	10.6
Textiles.....	1.80	1.41	1.69	-2.2	19.9
Paper.....	4.55	4.33	4.75	-5.0	9.5
Chemicals.....	18.78	12.77	13.47	-32.0	5.5
Petroleum.....	18.21	20.34	26.88	11.5	32.1
Rubber.....	2.17	1.78	2.15	-18.0	20.8
Other nondurables ¶	4.28	5.67	7.08	32.0	24.6
Nonmanufacturing.....	171.79	179.38	195.01	4.4	8.7
Mining.....	11.25	12.68	16.04	12.6	26.4
Transportation.....	12.25	11.98	12.98	-2.2	8.4
Railroad.....	4.03	4.17	4.44	3.5	6.4
Air.....	4.81	3.97	4.08	-17.0	2.8
Other.....	4.31	3.84	4.46	-10.9	15.7
Public utilities.....	23.89	24.67	27.64	3.3	12.1
Electric.....	27.45	27.44	29.46	-0.0	7.4
Gas and other.....	6.44	7.23	8.18	12.3	13.0
Trade and services.....	70.28	82.39	87.33	17.3	6.0
Communication and other ¶	24.23	27.65	40.54	14.2	47.0

* Preliminary.

† Planned capital expenditures reported by business in late November and December 1980. Plans have been adjusted for biases.

‡ Includes industries not shown separately.

§ Consists of lumber, furniture, instruments, and miscellaneous.

¶ Consists of apparel, tobacco, leather, and printing-publishing.

§ Includes construction; social services and membership organizations; and forestry, fisheries, and agricultural services.

2. For estimates of prior years, see "Revised Estimates of New Plant and Equipment Expenditures in the United States, 1947-77," pages 42-49, in the October 1980 SURVEY OF CURRENT BUSINESS, and the December 1980 issue, page 44.

The estimate of 1980 is based on actual expenditures in the first three quarters and plans for the fourth quarter. The plans were adjusted for systematic biases by procedures described in the October 1980 SURVEY.

The 1981 plans also were adjusted for systematic biases. Before adjustment, plans were \$181.0 billion for manufacturing and \$188.8 billion for nonmanufacturing; the net effect of the adjustments was to raise manufacturing \$0.10 billion and to raise nonmanufacturing \$4.46 billion. The bias adjustments, which are computed separately for each major industry, were applied only when plans deviated from actual spending in the same direction for 5 of the last 7 years. In these cases, the adjustment used was the median deviation between actual and planned spending in the last 5 years.

2. Respondents were asked:

"What are your best estimates of average price changes from 1979 to 1980 and expected price changes from 1980 to 1981?"

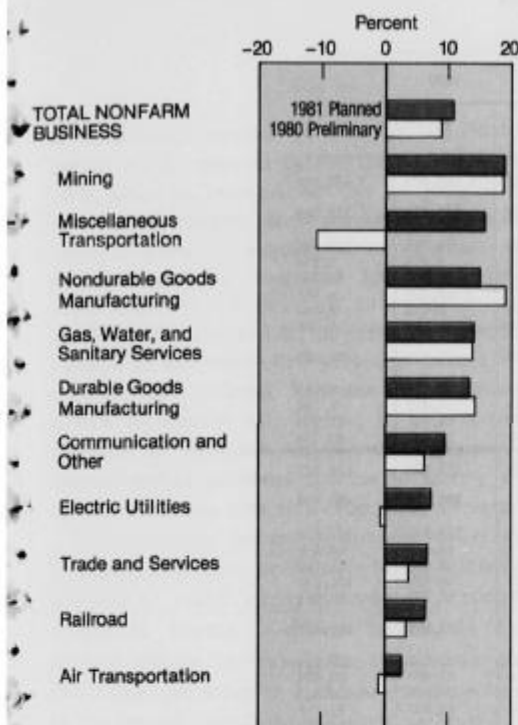
"a. Prices paid by your company for new construction, machinery, and equipment.

"b. Prices of goods and/or services sold by your company."

Similar information was obtained in the corresponding annual surveys conducted since 1970. The companies' responses on capital goods and sales price changes were weighted by their reported capital expenditures and sales, respectively.

CHART 8

Changes in Business Investment



U.S. Department of Commerce, Bureau of Economic Analysis

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year than those planned for this year. Motor vehicles plans an 8½-percent increase, the same as last year's increase. Chemicals, textiles, nonferrous metals, fabricated metals, stone-clay-glass, and paper plan increases of less than 6 percent; these industries, except for fabricated metals and stone-clay-glass, reported larger increases last year than those planned for this year. Iron and steel plans an 8½-percent decline; last year, this industry's spending increased 9 percent.

Nonmanufacturing industries plan to spend \$195.0 billion, 8½ percent more than in 1980. Last year spending increased 4½-percent. Mining plans a 19-percent increase, about the same increase as last year. "Other transportation"—principally, motor and water carriers and oil pipelines—plans to increase spending 15½ percent, following an 11-percent decline last year. Gas utilities plan a 14-percent increase, about the same increase as last year. The "communication and other," electric utility, trade and services, and air transportation groups plan increases of less than 10 percent, compared with smaller increases or declines in spending last year.

Table 2.—Change in Prices of Capital Goods Purchased

[Percent change from preceding year]

	Reported in Nov.-Dec. 1979 survey		Reported in Nov.-Dec. 1980 survey	
	Actual 1979	Expected 1980	Actual 1980	Expected 1981
Total nonfarm business.....	9.6	9.9	10.8	11.9
Manufacturing.....	10.0	10.3	10.6	10.7
Durable goods.....	10.2	10.5	10.4	10.5
Nondurable goods.....	9.8	10.1	10.8	10.9
Nonmanufacturing.....	9.2	9.5	11.0	11.2
Mining.....	12.6	13.1	13.2	14.1
Transportation.....	12.2	12.4	11.1	10.7
Public utilities.....	9.3	9.4	10.5	10.4
Other ¹	8.2	8.6	10.9	11.2

1. Data for the latest survey includes trade; services; and "Communication and other" as defined in Table 1. Data for 1979 and expected 1980 excludes real estate; professional and social services; membership organizations; and forestry, fisheries, and agricultural services.

Table 3.—Percent Change in Business Sales¹

	1980			1981 Expected as reported in: Jan. 1981
	Expected as reported in:		Actual	
	Jan. 1980	Mar. 1980		
Manufacturing	10.0	10.4	6.2	13.1
Durable goods ¹	9.2	9.2	1.3	13.5
Primary metals.....	9.9	7.7	-2.0	11.5
Fabricated metals.....	9.6	9.8	1.1	13.7
Electrical machinery.....	10.8	13.5	11.9	14.5
Machinery, except electrical.....	11.7	11.2	7.3	14.4
Transportation equipment.....	6.2	5.8	-8.7	15.0
Stone, clay, and glass.....	6.4	7.9	2.0	11.7
Nondurable goods ¹	10.9	11.7	11.6	12.6
Food including beverage.....	9.9	11.1	7.1	10.6
Textiles.....	7.0	7.9	4.1	8.3
Paper.....	10.8	9.9	7.2	12.8
Chemicals.....	12.7	12.6	8.5	13.4
Petroleum.....	14.1	17.2	32.5	17.4
Rubber.....	10.4	10.1	-1.5	13.1
Trade	10.0	8.1	8.6	10.1
Wholesale.....	8.7	8.8	10.9	10.7
Retail.....	11.2	7.4	6.3	9.5
Public utilities	16.0	16.7	21.8	14.8

1. Includes industries not shown separately.

Sources: Manufacturing data from Bureau of the Census, *Current Industrial Reports*, series M-3, for first 11 months of 1980, and BEA estimates for December 1980. Trade data are from Bureau of the Census, *Current Business Reports*, *Monthly Wholesale Trade and Monthly Retail Trade*, and BEA estimates for December 1980. Public utility figures are estimated by BEA on basis of data collected in the annual business investment surveys.

Sales and sales prices

Manufacturers expect their sales to increase 13 percent in 1981 (table 3). The actual increase in 1980 was 6 percent, compared with an expected increase of 10 percent. Trade firms expect an increase of 10 percent; last year, they had an 8½-percent increase, compared with an expected 10 percent. Public utilities expect a 15-percent increase in 1981; they had a 22-percent increase in 1980, compared with an expected 16 percent.

Manufacturers expect the prices of their goods and services sold to increase 10 percent this year, less than the 11½ percent they reported for last year; they had expected 8½ percent last year

Table 4.—Change in Prices of Products and Services Sold by Manufacturing and Utility Companies

[Percent change from preceding year]

	Reported in Nov.-Dec. 1979 Survey		Reported in Nov.-Dec. 1980 Survey	
	Actual 1979	Expected 1980	Actual 1980	Expected 1981
Manufacturing.....	9.2	8.5	11.7	10.1
Durable goods.....	7.5	7.8	8.9	9.1
Nondurable goods.....	11.1	9.3	14.5	11.1
Public utilities.....	12.1	11.2	18.3	14.6

(table 4). Public utilities expect a 14½-percent increase, compared with 18½ percent last year; they had expected 11 percent last year.